

ABSTRACT

Homeland Intelligence Systems Technology "H-LIST" comprises nano-sensors embedded in a silicon substrate and etched/fused in a micro-fibered material to enable an outfit for monitoring suspicious terrorist activities and for tracking biological and chemical gases, and explosives, including stationary and portable weapons of mass destruction such as those that are likely carried on the body of a terrorist or suicide bomber, or that are likely planted in a parked vehicle or carried inside a moving vehicle. H-LIST includes a wired outfit comprising at least a jacket that is worn by an officer, a security officer, a bus driver, hostesses, Doctors and the like, for sensing deadly gases and explosives in a defined area. A receptor is operatively configured with the outfit and attached on a waist belt, and communicatively connected to the outfit input/output connector through at least wired or wirelessly means for empowering the sensors and for receiving signal communication wirelessly; indicating the presence of a sensed agent. Detected signals are transported wirelessly through radio frequency signals to a central security monitoring station, enabling communication with first responders and backup security personnel or agents to the vicinity of the detection. The sensors are multifunctional and coded to recognize wavelike pattern of gases and explosives traveling through wave. The wired outfit and the receptor are operable to process the portion of the detection signal to determine whether there is a concealed object by conducting a test in which a first characteristic of a first dielectric constant associated with a person is determined, and a second characteristic of a second dielectric constant associated with the concealed object and or weapons of mass destruction is determined to expedite data transmission and communication to first responders.